

IN THE CLAIMS:

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1. (Previously Presented): A method in a network computer for diagnosing a problem, the method comprising the steps of:

- running diagnostic testing programs on a diagnostic adapter card coupled to the network computer;
- reporting the results from running the diagnostic testing programs; and
- analyzing the results from running the diagnostic testing programs to determine a cause of the problem.

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2. (Original): The method of claim 1, wherein the diagnostic adapter card is coupled to the network computer by way of an open slot on a PCI (Peripheral Component Interconnect) bus in the network computer.

3. (Previously Presented): The method of claim 1, wherein running diagnostic testing programs includes running a program to test one of bus timing, bus mastering, direct memory access operations, data and control registers associated with devices connected to a system bus, system memory, timeout functions, a boot flash monitor, input/output integrity for one or more devices selected from a keyboard, a mouse, a graphics adapter, a serial port, a parallel port, a universal serial bus port, a microphone, a speaker, and an audio output port.

4. (Previously Presented): The method of claim 1, wherein reporting results includes one of sending data to a remote workstation, storing information in a log file, and displaying a result code on a display device connected to the diagnostic adapter card.

5. (Previously Presented): The method of claim 1, wherein analyzing results includes one of detecting the absence of a response from a component, detecting a discrepancy between an expected response and an actual response, and recognizing errors in signal timing.

6. (Previously Presented): The method of claim 1, wherein analyzing the results from running the diagnostic testing programs includes one of detecting a nonfunctioning component, detecting an intermittently failing component, and detecting a faulty software program.

7. (Previously Presented): An apparatus in a network computer for diagnosing a problem, the apparatus comprising:

a processing means for executing diagnostic testing programs on the diagnostic adapter card;

a reporting means for reporting results from executing the diagnostic testing programs;

an analyzing means for analyzing the results from executing the diagnostic testing programs to determine a cause of the problem.

8. (Original): The apparatus of claim 5, wherein the apparatus comprises a diagnostic adapter card installed in an open slot on a PCI (Peripheral Component Interconnect) bus in the network computer and one or more wrap cables.

9. (Previously Presented): The diagnostic adapter card of claim 6, wherein the diagnostic adapter card includes a processing means to execute the diagnostic testing programs, a read only memory to boot the processing means, a random access memory to store diagnostic testing programs and data to be processed by the processing means, a first external connector to interface with a reporting device, and a second external connector to connect a wrap cable to send or receive sample data.

10. (Original): The diagnostic adapter card of claim 6, wherein an integrity of a first input/output port in the network computer and a second input/output port in the network computer is tested by connecting a wrap cable between the first input/output port and the second input/output port.

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11. (Original): The diagnostic adapter card of claim ~~10~~⁸, wherein the diagnostic adapter card processing means sends a first set of data on a system bus to a device card for the first input/output port, the first set of data is sent via the wrap cable to the second input/output port, a device card for the second input/output port receives a signal as a second set of data, the device card for the second input/output port sends the second set of data back to the diagnostic adapter card on the system bus, and the processing means on diagnostic adapter card compares the first set of data with the second set of data to determine any errors.

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12. (Original): The diagnostic adapter card of claim ~~10~~⁸, wherein the wrap cable between the first input/output port and the second input/output port converts a format of the data without changing content of the data.

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13. (Previously Presented): The diagnostic adapter card of claim ~~10~~⁸, wherein the processing means for executing diagnostic testing programs includes executing a program to test one of bus timing, bus mastering, direct memory access operations, data and control registers associated with devices connected to the system bus, system memory, timeout functions, system processor sequencing, a boot flash monitor, and input/output integrity for one or more devices selected from a keyboard, a mouse, a graphics adapter, a serial port, a parallel port, a universal serial bus port, a microphone, a speaker, and an audio output port.

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14. (Original): The diagnostic adapter card of claim ~~10~~⁸, wherein the reporting means for reporting results includes one of sending data to a remote workstation, storing information in a log file, and displaying data on a display device connected to the diagnostic adapter card.

15. (Original): The diagnostic adapter card of claim 10, wherein the analyzing means for analyzing results includes one of recognizing known error codes, detecting the absence of a response from a component, and recognizing errors in signal timing.

16. (Previously Presented): The diagnostic adapter card of claim 10, wherein the analyzing means for analyzing results includes one of detecting a nonfunctional component, detecting an intermittent component, and detecting a faulty software program.

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17. (Previously Presented): A computer program product for diagnosing a problem, the computer program product comprising:

instructions for diagnostic testing programs on a diagnostic adapter card;
instructions for reporting results from executing the diagnostic testing programs;
instructions for analyzing the results from executing the diagnostic testing programs to determine a cause of the problem.

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18. (Previously Presented): The computer program product of claim ¹³17, wherein instructions for executing diagnostic testing programs include instructions for executing an integrity test of a first input/output port and a second input/output port that are connected by a wrap cable between the first input/output port and the second input/output port.

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19. (Previously Presented): The computer program product of claim ¹³17, wherein the instructions for executing diagnostic testing programs includes executing a program to test one of bus timing, bus mastering, direct memory access operations, data and control registers associated with devices connected to the system bus, system memory, timeout functions, system processor sequencing, a boot flash monitor, and input/output integrity for one or more devices selected from a keyboard, a mouse, a graphics adapter, a serial port, a parallel port, a universal serial bus port, a microphone, a speaker, and an audio output port.

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20. (Original): The computer program product of claim ¹³17, wherein the instructions for reporting results includes one of sending data to a remote workstation, storing information in a log file, and displaying information on a display device connected to the diagnostic adapter card.

21. (Previously Presented): The computer program product of claim 17, wherein the instructions for analyzing results includes one of detecting the absence of a response from a component, detecting a discrepancy between an expected response and an actual response, and recognizing errors in signal timing.

22. (Previously Presented): The computer program product of claim 17, wherein the instructions for analyzing the results includes one of detecting a nonfunctional component, detecting an intermittently failing component, and detecting a faulty software program.
